

Title (en)

Pressure balanced radial rotary shaft seal

Title (de)

Druckentlastete radiale Drehwellendichtung

Title (fr)

Joint pour arbre rotatif radial à pression équilibrée

Publication

**EP 2594829 A1 20130522 (EN)**

Application

**EP 12192817 A 20121115**

Priority

US 201161629196 P 20111115

Abstract (en)

In combination with a body (2) defining an annular space (10) and a member (4) received for rotation or linear movement within the annular space (10), an annular seal (20) includes a first sealing member (28) defining a first sealing portion (70) disposed in constant engagement with a peripheral surface (6) of the member (4) during the rotation or the linear movement thereof, a second sealing member (80) defining a second sealing portion (90) disposed in constant engagement with the first sealing member (28) and radially aligned only with the first sealing portion (70), and a fluid pressure directed at least onto the second sealing member (80), whereby the second sealing portion (90) is configured to bias the first sealing portion (70) into the constant engagement with the peripheral surface (6) of the member (4).

IPC 8 full level

**F16J 15/16** (2006.01); **F16J 15/32** (2006.01)

CPC (source: EP US)

**F16J 15/002** (2013.01 - US); **F16J 15/322** (2013.01 - EP US); **F16J 15/48** (2013.01 - EP US)

Citation (applicant)

US 4889349 A 19891226 - MUELLER HEINZ K [DE]

Citation (search report)

- [XYI] US 3443814 A 19690513 - DAHLHEIMER JOHN CHARLES
- [Y] US 6367810 B1 20020409 - HATCH FREDERICK RONALD [US]
- [Y] DE 2101120 A1 19721005 - FREUDENBERG CARL FA
- [A] WO 2007131468 A1 20071122 - TRELLEBORG SEALING SOLUTIONS G [DE], et al
- [A] EP 2177794 A1 20100421 - A T P S P A [IT]

Cited by

US10217583B2; EP3329158B1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2594829 A1 20130522**; US 2013119611 A1 20130516; US 8720902 B2 20140513

DOCDB simple family (application)

**EP 12192817 A 20121115**; US 201213677390 A 20121115